

California Energy Commission
STAFF REPORT

LOCALIZED HEALTH IMPACTS REPORT

Addendum 1 For a Selected Project Awarded Funding
Through the Alternative and Renewable Fuel and Vehicle
Technology Program Under Solicitation GFO-17-602 –
Renewable Hydrogen Transportation Fuel Production
Facilities and Systems

California Energy Commission
Gavin Newsom, Governor



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ADDENDUM 1

The *Localized Health Impacts (LHI) Report for a Selected Project Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation GFO-17-602* was posted May 8, 2018 (CEC-600-2018-004).¹ This addendum uses the same approach to assess the LHI for projects with location changes or additions. H2B2 USA, LLC has proposed to construct a renewable hydrogen production facility (facility). This facility is anticipated to produce 1,000 kg/per-day of hydrogen fuel by using electricity from an existing solar photovoltaic power plant located in the vicinity. This hydrogen fuel will be used to supply the state's network of fuel cell electric vehicle (FCEV) refueling stations. The proposed location is described in Table 1, along with environmental justice (EJ) indicators² (See Appendix A).

Table 1: Project Type and Locations Along with EJ Indicators

Grantee	Project Type	Proposed Location	EJ Indicator(s)
H2B2 USA, LLC	Renewable Hydrogen Production Facility	The Intersection of Laurel Ave and 25 th Ave Lemoore, CA 93245	Poverty, Minority, and Unemployment

Source: California Energy Commission staff

Air Quality and EJ Indicators

The newly proposed facility is in a nonattainment zone³ for ozone, particulate matter (PM⁴) 2.5, and PM 10. If a project is located within a nonattainment zone for air pollution has more than one EJ indicator (shown in Table 1) as detailed in Table 2, it is considered a high-risk community project location, according to the Environmental Justice Screening Method (EJSM).⁵

1 Brecht, Patrick. 2018. **Localized Health Impacts Report For a Selected Project Awarded Funding Through the Alternative and Renewable Fuel and Vehicle Technology Program Under Solicitation GFO-17-602 – Renewable Hydrogen Transportation Fuel Production Facilities and Systems**. California Energy Commission, Fuels and Transportation Division. Publication Number: CEC-600-2018-004.

2 EJ indicators developed by the U.S. Environmental Protection Agency (EPA), Office of Policy. Available at <https://www.epa.gov/ejscreen/environmental-justice-indexes-ejscreen>

3 Nonattainment zones are areas designated by the California Air Resources Board (ARB) with at least one violation of an air quality standard for pollutants within the last three years, as of June 2017.

4 Particulate matter is unburned fuel particles that form smoke or soot and stick to lung tissue when inhaled. The numbers stand for microns in diameter.

5 California Air Resources Board (ARB), *Air Pollution and Environmental Justice, Integrating Indicators of Cumulative Impact and Socio-Economic Vulnerability Into Regulatory Decision-Making, 2010*. (Sacramento, California) Contract authors: Manuel Pastor Jr., Ph.D., Rachel Morello-Frosch, Ph.D., and James Sadd, Ph.D.

A comparison of the proposed project location with the state average and staff's EJ indicator thresholds is shown in Table 2. When a project located in a nonattainment zone has more than one EJ indicator category exceeding the threshold, it is considered a high-risk community project location (and colored in red in Table 2). The proposed project in Lemoore is located within a nonattainment zone and exceeds the EJ threshold for poverty, persons of Hispanic or Latino origin, and unemployment rate. According to staff's assessment, the proposed project location in Lemoore is considered a high-risk community project location.

Table 2: EJ Indicator Categories by Project City

	Below Poverty Level (2017)	Black Persons (2017)	American Indian and/or Alaska Native (2017)	Asian and/or Pacific Islander (2017)	Persons of Hispanic or Latino Origin (2017)	Persons Under 5 Years of Age (2017)	Persons Over 65 Years of Age (2017)	Unemployment (October 2018)
California	11.1%	5.8%	0.7%	14.5%	38.8%	6.4%	13.2%	4.2%
EJ Indicator Threshold	>11.1%	>30%	>30%	>30%	>30%	>26.4%	>33.2%	>4.2%
Lemoore*	20.9%	6.4%	1.5%	4.0%	53.7%	9.2%	8.0%	6.4%

Sources: California Energy Commission, Employment Development Department, and US Census Bureau. *The City/County names in red indicate a high-risk community while the yellow highlighted percentages indicate which categories exceed the EJ indicator threshold. **An asterisk (*) after the city name signifies a default to county demographics and/or labor information

Location Analysis and Community Impacts

The proposed facility location and the EJ indicators used are comparable to the original LHI report. This new facility does not emit any criteria or toxic pollutants in the hydrogen production process. However, commute traffic and hydrogen transport trucks (an estimated four per day) would generate a negligible amount of emissions.

During project construction, minimal soil disturbance is expected, as there will be no need for major excavation, grading, and other earthworks. Any potential dust created would be minimal by H2B2 USA, LLC following dust counter-measures set by the San Joaquin Valley Air Pollution District regulations this project location is subject to. The expected level of on-site activity from maintenance crews and daily loading activities is not likely to conflict with local agriculture vehicles and equipment on public roadways. Based on staff's analysis, it is not anticipated that implementing this project will have negative impacts on criteria and toxic emissions, specifically in high-risk communities.

APPENDIX A:

Localized Health Impact Report Assessment Method

This LHI Report assesses the potential impacts to communities from projects proposed to receive ARFVTP funding. This report is prepared under the *California Code of Regulations, Title 13, Motor Vehicles, Chapter 8.1 (CCR § 2343)*:

“(6) Localized health impacts must be considered when selecting projects for funding. The funding agency must consider EJ consistent with state law and complete the following:

(A) For each fiscal year, the funding agency must publish a staff report for review and comment by the public at least 30 calendar days prior to approval of projects. The report must analyze the aggregate locations of the funded projects, analyze the impacts in communities with the most significant exposure to air contaminants or localized air contaminants, or both, including, but not limited to, communities of minority populations or low-income populations, and identify agency outreach to community groups and other affected stakeholders.

(B) Projects must be selected and approved for funding in a publicly noticed meeting.”

This LHI Report is not intended to be a detailed environmental health impact analysis of proposed projects nor is it intended to substitute for the environmental review conducted during the California Environmental Quality Act review. This LHI Report includes staff’s application of the EJSM developed by the EPA to help identify projects located in areas where social vulnerability indicators, greatest exposure to air pollution, and its associated health risks are present.

To determine a high-risk community project location, data from ARB, U.S. Census Bureau, and other public agencies are compared to the EJ indicators within that location. The proposed project location must meet a two-part standard as follows:

Part 1:

- Communities located within a nonattainment zone for ozone, PM 2.5 or PM 10; as designated by the California Air Resources Board

Part 2:

- Communities having more than one of the following EJ indicators for (1) minority, (2) poverty, (3) unemployment, and (4) Age. The EJ indicators are defined by staff as:
 - 1) A minority subset represents more than 30 percent of a given city’s population.
 - 2) A city’s poverty level exceeds the state average poverty level.

- 3) The city (or county if city data is unavailable) unemployment rate exceeds the state average unemployment rate.
- 4) The percentage of people living in a city who are younger than 5 years of age or older than 65 years of age is 20 percent higher than the state average for persons under 5 years of age or over 65 years of age.